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ABSTRACT

This training module of the Creating Employment Opportunities Project is designed to inform college professors and instructors on how to accommodate college students with learning disabilities. The module provides a definition and characteristics of a learning disability; provides an understanding of what it means to have a learning disability and dismisses myths associated with disabilities; introduces legislation concerning learning disabilities, highlighting the responsibilities of the institution, the instructor, and the student; introduces learning styles and how instruction and materials can be adapted to accommodate an individual's learning style; and provides a list of facilities available on the campus of the University of Missouri-Columbia and nationally to assist the instructor or the student. The training module provides objectives, a training agenda, background information, notes to the trainer, handouts, and overhead transparency originals. (Contains 20 references.) (JDD)

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ED 380 980

CREATING EMPLOYMENT OPPORTUNITIES

HOW TO PROVIDE ACCOMMODATIONS FOR STUDENTS WITH LEARNING DISABILITIES

U.S. DEPARTMENT OF EDUCATION
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Center for Innovations in Special Education

Martha Wille Gregory, Editor

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How to Provide Accommodations For Students with Learning Disabilities

Directions For Use

This module contains handouts and overheads that can be used to illustrate points. Cues are given on the right side of the page as to the proper time to use or refer to the overheads and handouts. The handouts and overheads are located in the back of the module. Notes to the trainer are in *italicized* script. The module is meant to be used as a tool and not read aloud to the audience. When conducting the training:

PRIOR TO TRAINING:
- Know your audience and know the number of participants.
- Have the handouts ready and in packets.
- Determine if alternative formats will be needed (i.e. enlarged print, interpreter).
- Rehearse, Rehearse, Rehearse.
- Check over equipment.
- If possible, check out the facility to familiarize yourself.
- Be early.

DURING THE TRAINING:
- Have fun, be relaxed. Allow for interaction. Use examples from your own life.
- Begin and end on time.

WHEN USING THE EQUIPMENT:
- When using the overhead, use a sheet to cover information until it is disclosed.
- Use a pointer or pen to point to information.

ADAPTATIONS FOR INDIVIDUALS WITH DISABILITIES:
- Make sure all participants are included in the activities.
- Make available, if necessary, large print, braille, or taped copies of presentation.
- Ask the individual what type of accommodation is needed.
- Repeat questions and comments from the audience.
- Speak in a normal voice to the audience.
- If not using the overhead, turn it off. It can be distracting.

MATERIALS NEEDED FOR THIS TRAINING SESSION:

- Pre/post survey
- Sign-up list
- Folder packets for handouts
- Pencils/pens
- Name tags (optional)
- Overhead projector/projector screen
- Video equipment (if recording training session)
- Video (Part of the Team)
- Podium
- Food/Drink (optional)
- Pay Day candy bar
- TV/VCR
- Evaluation/Feedback Form

I. Purpose/Introduction

Overhead #1
Workshop Title

The purpose of this module is to inform college professors and instructors how to accommodate the college student with a learning disability. The number of students with learning disabilities attending college is on the rise. In fact, students with learning disabilities comprise at least 7% of all incoming freshmen (West, 1993). To accommodate their special needs, college professors and instructors need to use alternative teaching strategies, a variety of teaching materials, and have a list of organizations and facilities available to help these students.

A. Objectives

Overhead #2/Handout #1
Objectives

The objectives for this workshop are to:

1. Provide a definition and characteristics of a learning disability.
2. Provide an understanding of what it means to have a learning disability and dismiss any myths that may be associated with disabilities.
3. Introduce legislation concerning learning disabilities, highlighting the responsibilities of the institution, the instructor and the student.
4. Introduce "learning styles" and how instruction and materials can be adapted to accommodate an individual's learning style.
5. Provide a listing of facilities available on and off campus that can be utilized by the instructor or student.

Overhead #3/Handout #2
Agenda

B. Agenda

To trainer: The participants have an outline in their packets.

Our agenda for this workshop is:

- **I. Purpose/Introduction**
  - A. Objectives
  - B. Agenda
- **II. Attitudes/Values**
  - A. Myths
    - ●Activity
  - B. Definition of a Learning Disability
  - C. Video-How Difficult Can This Be?
  - D. Problems Students Face

III. **Statistics/Legislation**
   A. Statistics
   B. Legislation
      - Section 504
      - ADA
   C. Responsibilities of institutions under 504 and ADA

IV. **Learning Styles/Modifications/Auxiliary Aids**
   A. Learning Styles
   B. Modified Teaching Styles
      - Alternative forms of testing
      - Other accommodations
      - Modification activity
   C. Challenges for Students/Faculty
      - Students-How to be an advocate for oneself
      - Faculty

V. Resources
   A. Campus
   B. Off Campus

VI. Conclusion

Since we have already covered the first section of our workshop, let us continue with section two, Attitudes and Values.

II. Attitudes/Values

A. Myths

Overhead #4
Handout #3 Beliefs, impressions, myths

What are some of the beliefs, impressions, or myths you know or have heard concerning individuals with learning disabilities? I will give you a few minutes to think about it. Please write down your responses on your handout.

To Trainer: Give the participants a few minutes to think about the question and have them write down their answers. Be sure to write their questions, beliefs, and impressions exactly as they express them on the overhead provided. Allow the participants to have a question and answer session at this point. Other possible discussion questions that you may include in the exercise are:

1. How does a person with a learning disability differ from an individual who is mentally retarded?

Persons with a learning disability have average to above average intelligence. There is a significant discrepancy between intelligence and achievement.

2. Should college instructors provide alternative methods of instruction to students with learning disabilities? If so, what accommodations?

   Students with learning disabilities are entitled to accommodations that will assist in successfully passing a course. Accommodations will be addressed later in this module. Be sure to refer back to their answers when discussing accommodations. Remind the participants that each institution may have specific guidelines to follow for accommodations.

3. Do you believe by providing accommodations to students with disabilities, you are being unfair to the other students in the class? If so, why? Why not?

   Some individuals may believe that accommodations are unfair to the other students in the class and give an advantage. Explain to these individuals that accommodations are not unfair to the other students in the class and this will be discussed later in this course.

To Trainer: Give them a few more minutes to address these questions if you have included them in your workshop.

All of the questions I have asked you to respond to will be covered during the course of this workshop. There are many stereotypes and myths that are associated with learning disabilities.

Some myths about individuals with learning disabilities include:
- a form of mental retardation
- may be caused by a poor academic background
- only affects academic performance
- it is due to lack of motivation
- or poor auditory or visual acuity

Stereotypes are often formed because there is a lack of understanding. People who believe stereotypes have not been informed about what it means to be learning disabled.

As we mentioned earlier, persons with a learning disability have average to above average intelligence. These individuals are not

learning disabled because of a poor academic background, poor auditory or visual acuity, or lack of motivation. Let's discuss the definition of a learning disability.

B. Definition of a Learning Disability

The National Joint Committee on Learning Disabilities (NJCLD), composed of nine organizations with a major interest in learning disabilities including the Association on Higher Education and Disability (AHEAD), American Speech-Language-Hearing Association, Council for Learning Disabilities, and National Association of School Psychologists, developed its own definition:

"Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences" (Brinckerhoff, 1993).

Important elements of the disabilities are:

(a) recognition that the term "learning disabilities" refers to more than a single type of learning disorder;

(b) the assumptions that these learning disorders are intrinsic to the individual and the result of central nervous system (CNS) dysfunction; and

(c) the assertion that they are different from those caused by pervasive or general mental deficiency or lack of opportunities to learn.

A learning disability is **not** due to an environmental disadvantage or mental retardation. A learning disability is assumed to be a neurological "barrier" that interferes with the ability to store, process, or produce information. Because of this interference, people with learning disabilities have a discrepancy between their potential academic achievement and what they can learn.

In order to provide a better understanding of what it means to have a learning disability, I would like to share a video entitled "How Difficult Can This Be?".

C. How Difficult Can This Be? (Video)

Video #1

I have enclosed in your handbook a sheet on the key points to look for in this video and I left room for you to write questions, thoughts, etc. We can discuss your notes after the video.

To Trainer: If you are pressed for time you may want to skip the video completely (Section C). The video is 70 minutes long. If you wish to shorten the video, you may want to skip the section entitled "Effect of Perception on Behavior" (which is about five minutes long). It follows the reading comprehension section. To shorten the video further, you may want to exclude the "Commentary" section. This section is about 15 minutes long. The best parts of the video include examples of average learners given tasks that demonstrate what it is like to be a person with a learning disability. You might want to take notes as well. See overhead and handout after video. Discuss what was learned from the video and any points the participants may have written down. You may use the questions below to encourage discussion on the video.

Overhead #6
Handout #5
How Difficult Can This Be? - notes

How do you think the individuals who participated in this experiment felt? Individuals with learning disabilities face the following everyday:

F-Frustration
A-Anxiety
T-Tension

To Trainer: Most individuals in the video felt frustrated, anxious, and tense. Be sure to discuss the F.A.T. (frustration, anxiety, and tension) the normal learners faced when trying to learn the material that had been adapted to demonstrate specific learning disabilities.

Key points of the video discussed are: making jokes at the expense of the student with a learning disability can cause frustration; anxiety

Key points of the video discussed are: making jokes at the expense of the student with a learning disability can cause frustration; anxiety affects performance; anxiety can give the impression that the student does not know the material; fast paced classes can make the student extremely tense; and adults with learning disabilities have a common problem of not taking chances because of the negative results when they took risks.

How did the video portray some of the characteristics of an individual with learning disabilities?

Overhead #7
Handout #6
How Difficult Can This Be? - questions.

Inability to process language:
An example included a student giving an answer to a previous question even thought the answer has already been given and the teacher has asked a new question. The speaker discussed how regular children process the answer while students with a learning disability are processing the question. These students need twice the processing time.

A visual perception problem:
The speaker used an abstract picture and participants came up with different answers. However, once he told them the picture was a cow and used overlay, the picture became clear. The speaker mentioned four things teachers will do when a child is unable to perceive visual stimuli. The teacher will do the following:

1. Ask the student to look at it harder.
2. Promise the student something - some kind of bribe.
3. Threaten to take things away.
4. Blame the student - accuse the student of not trying hard enough or believe the student is not motivated.

What effect does this have? Are these techniques helpful?

To Trainer: Give examples from a college setting.

A reading comprehension problem:
Teachers often focus on vocabulary when teaching reading comprehension. The theory is if you understand every word in a paragraph you will understand the content in the paragraph. However, comprehension has more to do with the individual's background. In the video, the participants recognized all the words being used in a paragraph but the content of the paragraph involved the use of a mathematical formula. The only person who understood the paragraph was an Engineer with a mathematical background.

To Trainer: The next section is entitled "Effect of Perception on Behavior."

A visual-motor coordination problem:
A student with a visual-motor coordination problem gets mixed messages from eyes and hands or from the visual system to the motor system. The speaker demonstrated this problem by having students trace an abstract drawing using a mirror. Writing is the activity most commonly affected by this integration problem.

An oral expression problem:
The speaker discussed the problem of dysnomia, a word finding problem. Students with dysnomia will stutter or use descriptors rather than the actual name.

The video described how the brain has storage and retrieval systems. Students with a learning disability may have a connection problem between storage and retrieval. Everything we do is either an associative or cognitive task. We can only do one cognitive task at a time but can do more than one associative task. For most individuals, speaking is an associative task which means they can perform other tasks while speaking. For some persons with a learning disability, speaking is a cognitive process. Many of these individuals cannot listen and write at the same time in order to take notes because each of these tasks requires their full attention.

Reading and decoding:
The video discussed the difficulties students can have with the letters "p", "b", "d", and "q". The reason for this is the fact that from birth to age five, spatial orientation does not dictate object identification. However, with reading, the placement of the letter changes its meaning. Many students with learning disabilities are not able to distinguish letters of the alphabet because of difficulties with spatial orientation. The speaker used broken words, broken lines, run on letters and substituting p's, q's, d's and b's for each other to demonstrate the difficulty of decoding.

Auditory and visual capabilities:
The video gave examples of how students may need auditory input to learn. The speaker gave the participants a paragraph to read silently that made no sense until he read it aloud. The content was then made clear. This is an example of what it means to be an auditory learner.

To Trainer: You can skip the final sections on "Fairness", the commentary and closing remarks if you wish to shorten the video. These last sections are approximately 15 minutes long.

What can instructors do to be more accommodating to the students?

Solutions discussed in the video include the following:

a. Give the students more time to process the information.
b. Provide direct instruction.
c. Talk with the student privately and make an arrangement. Explain that you will **only** ask the student a question when you are standing next to their desk. This will give them time to process the question and come up with an answer.

When asking questions, give students time to think of answers. Many students will come up with several answers while a student with a learning disability will only come up with one or two. Ask the student with the disability to answer first in order to be successful and reduce the chance that their answer will be the same as another student in the class.

To Trainer: Possible discussion question: What are other examples?

As an educator, how would you be able to alleviate some of the frustration, anxiety, and tension individuals with learning disabilities may encounter in your classroom?

To Trainer: Allow the participants to discuss what they have learned in the video and how this information could be adapted to accommodate their own students. Ask participants to describe their thinking about the issue of "fairness."

Teachers are urged to re-examine the notion of what is "fair." "Fair" does not mean that every individual gets the same treatment, but that every student gets what he or she needs (Lavoie, 1990). It is important to remember that when you are providing accommodations to individuals with learning disabilities, you are giving them the opportunity to be successful in your classroom. Fairness is not relevant in this instance because the other students do not need the assistance you may be providing to the student with the learning disability. Therefore, assistance is fair to that particular student.

D. Problems Students Face

To Trainer: Possible discussion question: Now that we have a better idea of what students with learning disabilities experience, what problems do they face in postsecondary settings?

The most significant responsibility the student must accept is self-identification. Self-identification involves the process of notifying faculty and staff of the disability. Self-identification is the basis for existing statutes and disability support programs currently administered. However, identification may be the single largest stumbling block to full inclusion and service to students with disabilities on our campuses today.

Many of the students who are unwilling to identify themselves were identified in high school and received services. The reason for this hesitation may be due to the fact that the student's high school is smaller, familiar and more accommodating to the student's needs. A college setting can often times seem cool, uncaring, and extremely competitive. For a student with a learning disability in high school, the main competition is to improve individual skills; not to compete with other students in high school (Jarrow, 1991).

When students with learning disabilities were surveyed about their college experiences, the majority indicated they had encountered barriers to their education, including a lack of understanding and cooperation from administrators, faculty, staff, and other students.

The biggest restriction students with learning disabilities face is teachers who are unwilling to make needed accommodations or modify the curriculum. Postsecondary faculty are frequently susceptible to commonly held stereotypes, which may, in turn, be a barrier for student success (Houck, 1992).

Many students with disabilities report being denied accommodations even after following their institutions' procedures for requests and grievances. All too frequently, schools give priority to instructors' "class rules" over the legal rights of the students. It is vital for colleges and universities to take a stronger role in educating course instructors regarding disabilities and students' entitlement to course modifications and other accommodations (West, 1993).

College instructors may not know how to accommodate the needs of students with disabilities. College instructors may also believe that by

providing accommodations they are giving the individual an unfair advantage over the other students. However, this is not the case. The college student with a learning disability must still learn the content being taught but needs alternative methods to obtain the knowledge. Therefore, this workshop was developed to educate instructors, administrators and other school personnel about what it means to be learning disabled and how to be more accommodating to the needs of these students.

It is not just a privilege but a right under Section 504 of the Federal Rehabilitation Act and the Americans with Disabilities Act that educational institutions provide accommodations to those individuals identified with a disability. Let us now talk about these two laws and how they relate to students attending college.

III. Statistics/Legislation

Overhead #8 Statistics

A. Statistics

It has been estimated that one in ten Americans has a learning disability and increasing numbers of these individuals are pursuing an education in community colleges and four year institutions. The numbers of individuals with learning disabilities attending college has increased dramatically in recent years. In fact, students with learning disabilities comprise at least 7% of all incoming freshmen (West, 1993). These numbers are based on college students who have identified themselves as having a learning disability.

B. Legislation

To Trainer: Encourage discussion of these two mandates before providing details. Ask about their knowledge of these laws.

Handout #7
Section 504 and ADA

Section 504

Section 504 of the Federal Rehabilitation Act of 1973 (which was signed into law on April 28, 1978) was the first federal civil rights legislation designed to protect the rights of individuals with disabilities. Section 504 stipulates that "no qualified handicapped person shall, on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity which receives or benefits from federal assistance." (Shaw, 1986).

Therefore, Section 504 protects qualified students with learning disabilities and allows them the opportunity to attend college and receive modifications or accommodations to compensate for the learning disability.

When Section 504 became effective, all colleges and universities were required to designate a qualified individual who would be responsible for implementing the law. This person was designated for accountability purposes and to develop the organizational process to enable students with disabilities to attend their institution with modifications and accommodations.

The protection through Section 504 was expanded to include all citizens with disabilities through the American with Disabilities Act of 1990 (Public Law 100-336) (West, 1993).

ADA

The Americans with Disabilities Act (ADA) has been called the most sweeping civil rights act passed in the last 25 years. The law prohibits discrimination against individuals with disabilities in many different settings, including colleges and universities, **regardless** of whether the educational institution receives federal financial assistance (Jarrow, 1991). Through the enactment of ADA, numerous support services have been created including ADA Coordinators for every college campus in the U.S. The enactment of these two federal mandates provides rights to individuals with learning disabilities. These rights include support services and accommodations in order for the student to be successful in college.

C. Responsibilities of Institutions under Section 504 and ADA

Overhead #9
Needs of the student with a learning disability

Section 504 and ADA require that programs be accessible to students with disabilities. For courses to be accessible to students with learning disabilities, college instructors must be willing to provide accommodations. Reasonable accommodations for students with disabilities are a right under these laws. The accommodations should not affect the integrity of the program.

It is the responsibility of the student to inform the teacher that he or she has a learning disability. It is the student's responsibility to provide documentation of his/her learning disability. Documentation may include registering with the institution's Office of Students with

Disabilities. Other documentation can include a statement from the student's physician or vocational rehabilitation counselor. The student is also partially responsible for identifying what accommodations are necessary in order to succeed.

Can you identify some accommodations that could be made in your classes?

Some accommodations that may be mentioned in the workshop include the following:

- adapting materials
- changing teaching styles
- allowing tape recording and/or notetakers
- providing outlines

It is important to remember that schools are responsible for making modifications to academic requirements.

Please remember, you can be the most accommodating instructor in the world but unable to help students unless they are willing to disclose their learning disability. It is the responsibility of the student to approach the college instructor and request assistance. What can you do to help students feel comfortable to express their accommodation needs?

To be helpful to students who may need accommodations, provide them with an invitation to approach you with their needs. The instructor could make a blanket statement on the first day of class stating if anyone needed accommodations, see him/her. You will demonstrate to the students that you are willing to be of assistance to them and they, in turn, may feel more comfortable approaching you. You may want to announce in class your office hours so the student can see you in the privacy of your office. The same blanket statement listed above should also be included in the syllabus so students are reminded periodically that the accommodation is available to them.

There are two ways to serve the needs of the student with a learning disability in a college setting:

1. The student adapts to existing institutional standards with help from counseling, tutoring and support services, and

2. The institution adapts its basic process of teaching and program requirements to the learning styles of the student (Sedita, 1980).

These adaptations can take the form of separate requirements for a degree, reduced requirements, or an alternative degree program. Each institutions has its own procedures for dealing with program changes, but it must meet the essential function of the curriculum. Usually, a combination of both approaches is necessary to produce successful learners. To help students and modify teaching techniques, it is important to understand learning styles of individuals and adapt to those styles.

IV. Learning Styles/Modifications/Auxiliary Aids

To accommodate the increasingly diverse learning needs of college students, including those with learning disabilities, instructors must understand the concept of learning styles. Instructors also need to learn to adapt their curriculum and teaching style in order to be more effective in the classroom (National Association of Secondary School Principals, 1982).

To Trainer: Do Learning Styles activity here. Directions to audience:

1. *Move around in your seat.*
2. *Get up and stretch—the human animal does not do enough of this.*
3. *Roll your neck.*
4. *Raise your arms above your head.*
5. *Make your fingers dance.*
6. *Lower your left arm—that's this one, folks.*
7. *Now take your thumb and your forefinger and make a circle. Tell the audience to place the circle on their chin at the same time that you place the circle on your cheek.*

To Trainer: Many of the participants will imitate you and put the circle on their cheek rather than the chin as directed.

To Participants: As you can see, many participants placed their circle on their cheek rather than chin as directed.

Seventy percent of the population is visual. This should mean that most of you will enjoy the overheads I have prepared for this session. This has been an informal assessment of your learning style.

A. Learning Styles

What is a learning style?

What types of learning styles are there?

To Trainer: Responses you might hear include: global thinkers/learners (right brain thinkers), analytical thinkers/learners (left brain thinkers), simultaneous processors, sequential processors (Kaufman model), concrete sequential, abstract sequential, abstract random, concrete random (Gregorc model).

As indicated there are several types of learning styles. Three learning styles to be discussed today are:

- Visual learners
- Auditory learners
- Tactile/Kinesthetic learners (Dunn & Dunn model)

Are you familiar with these styles, if so explain.

To Trainer: Allow the participants the opportunity to describe the styles if they can. If they are unable to name any or all of them provide the information.

A learning style is the way an individual most effectively concentrates on, absorbs, and retains new and difficult information or skills. It comprises a combination of elements that enables an individual to receive, store, and use new information (Dunn & Dunn, 1978).

One's learning style is affected by the:

Overhead #10
Learning styles

- immediate environment (e.g., sound, light, temperature, formal or informal design)
- one's emotional state (e.g., level of motivation, task persistence, conformity, need for structure)
- sociological needs (e.g., to work alone, with peers, with mentor, or a variety)
- physical characteristics (e.g., perceptual strengths, best time of day, need for movement) and
- psychological inclinations (e.g., reflective vs. impulsive, right brain; global vs. left brain; analytical) (Dunn & Dunn, 1978).

Overhead #11
Handout #11
Specific Learning Styles - definitions

We will be discussing four types of learning styles based on the perceptual strengths of the learner. This construct of learning styles was described by Drs. Rita and Kenneth Dunn and has been validated by considerable research. This research has shown an increase in academic achievement, an improved attitude toward school, and reduced number of discipline problems when students are taught using materials and strategies that compliment their learning styles.

Visual Learners

Visual learners need to "see it to know it." They may have difficulty following verbal directions or information presented through lecture. Instructional approaches that facilitate learning include:

1. Use of graphics to reinforce learning (films, videos, slides, illustrations, diagrams, models, graphs, flow-charts, etc.)
2. Color coding to organize ideas and processes
3. Written directions
4. Key words written on the chalkboard or overhead to emphasize key points/information.
5. Guided imagery or other visualization techniques

Auditory Learners

Auditory learners prefer to gain information by listening. They may have difficulty following written directions or comprehending text which presents unfamiliar concepts and vocabulary. Auditory learners may also find writing to be a struggle. Instructional approaches that facilitate learning include:

1. Use of tape recordings, lectures, and verbal explanations/review of written materials (such as the class text or lecture notes)
2. Group discussion and cooperative learning activities
3. Use of oral exams or test questions recorded on tape.

Tactile and Kinesthetic Learners

How many learn at least some tasks best by doing?

To Trainer: An example is learning to use the computer. It's not enough for most of us to read the voluminous manual. We acquire the skills most easily by thorough modeling and hands-on practice.

For tactile learners, instruction must involve the sense of touch. This learner often takes notes or appears to be doodling during lectures. Tasks that require the manipulation of concrete objects (e.g., building a model, performing an experiment) are successful for tactile learners. The use of the computer for writing or to reinforce learning may be helpful.

Kinesthetic learners learn by doing when physical activity is involved. They may have difficulty maintaining attention to visual or auditory presentations and prefer to be doing something. Opportunities for dramatization/role playing, memorizing or drilling while walking or exercising, involvement in the tactile activities described above (building a model, etc.) all facilitate learning for these students.

These activities are not traditionally used in many college classrooms but should be considered as instructional options to enrich all students' opportunities for learning.

Many learners get the best results from the use of a variety of learning styles and instructional approaches. Multi-sensory stimuli should be the focus when teaching. Instructors need to present materials in visual and auditory modes and provide for hands-on application whenever possible (National Association of Secondary School Principals, 1982).

Can you identify ways you could utilize a variety of these learning styles in your classroom? Give me some examples.

Allow discussion of alternatives.

B. Modified Teaching Styles

From what we now know about learning styles, let's discuss some techniques we can use to become more effective teachers.

Overhead #12
Handout #12
Alternative testing methods

Alternative forms of testing

Many students with learning disabilities have a difficult time passing courses because they have problems with testing. The purpose of testing is to determine what the students know, not to confuse or trick them.

Sometimes accommodations can be as simple as providing alternative

forms of testing. For example, rather than an essay test, make a multiple choice test for the student. The student is still required to know the information but may be able to confirm their knowledge through multiple choice questions. Or some students have trouble with multiple choice tests. These students could confirm their knowledge of the subject through short answer or essay questions.

To Trainer: Pose the following questions to the participants: What are some other testing accommodations you could provide for these students that would allow them to demonstrate knowledge of the material?

To Trainer: Have the participants write down some ideas of testing accommodations and share their answers.

To Trainer: Allow for discussion and expand any of the points listed below not covered completely.

1. Let your students know what kind of test to expect as well as the key contents that will be covered.

   For example: The test will consist of 10 true/false items, 15 multiple choice items, 10 fill in the blank, and an essay question worth 15 points.

2. Allow the student to take an alternative form of the exam.

   As we discussed a moment ago, alternative forms could include multiple choice, a shorter version of the test, short answer, etc. Sometimes the form of the test is fine for the student but may be too long. Many students with a learning disability have difficulty with lengthy tests. A shorter version could still test the student's knowledge of the subject without being too taxing or the test could be given in parts over a period of time.

3. Allow the student extra time to complete a test.

   To Trainer: This will be controversial; you might need to discuss/defend this.

4. Allow the student to take the exam in a separate, quiet room to reduce distractions.

Students with a learning disability may be easily distracted. A room that is free from visual and auditory distractions may be an appropriate accommodation for these individuals.

5. Allow a proctor to read the exam questions to the student.

   As mentioned earlier, some students are auditory learners. Having someone read it aloud may help them understand the questions being asked. Reading the question aloud themselves does not always benefit each individual. Their concentration is placed on the reading rather than the content of the question. A proctor allows the student to focus on the content.

Overhead #13
Handout #13
Accommodation activity

6. Allow the student to dictate test answers to a proctor or tape record answers.

   Some students are able to express themselves better orally than in writing.

7. Allow the student to use electronic equipment during a test such as a word processor, calculator, tape recorder, etc.

8. Provide study guides.

9. Have the student develop a product or package to demonstrate knowledge of a unit as an alternative to testing. This is termed "authentic assessment". This may include: developing a portfolio, building or making a project, or doing an activity.

Other accommodations

Providing alternative forms of testing is just one way you can accommodate the needs of a student with a learning disability.

Activity: Take a few minutes to write down some other types of adaptations, accommodations, or teaching styles you have observed being used in this workshop. A handout has been provided.

Write their responses on the overhead. The participants have a copy of the activity in their packets. Have them write their responses on the handout. Explain that these notes can be beneficial if they need ideas on accommodation.

Samples of adaptations, teaching styles or accommodations provided

in this workshop include the following:

- printed handouts;
- overheads;
- *visuals through printed material, overheads and verbally discussing* each subject;
- an outline;
- a video as a teaching tool; and,
- guided brainstorming-the learning disability myth activity was guided brainstorming-the trainer actually set the stage and subject.

What other techniques or adaptations could be used in the classroom to accommodate a student's needs?

To Trainer: Encourage discussion of alternatives. Write these down on the overhead as well.

With this last activity, I have given you information both visually and verbally by providing an overhead, giving you the question in print, and reading the question to you. In addition, I gave you a few minutes to think about the question before we began brainstorming. These are just a few methods that you can easily incorporate into your curriculum.

Many adaptations can be used during direct instruction without interfering with your teaching style. Some adaptations include the following:

1. Allow the student to get a copy of your syllabus before the semester begins.

   Students with disabilities can benefit from gaining access to course syllabi before the semester begins. Having this information will give the student extra time to locate books on tape, record them if necessary, find textbooks, and begin to plan ahead for the course requirements and assignments.

2. Provide an outline of the lecture indicating key points to be covered.

   This will prepare the student to listen for these key points during the lecture. These key points will also give the student a study guide.

3. Color code matching handouts and overheads to help identify different subjects, concepts or ideas.

   Color coding handouts and having overheads match in color help keep the students' attention and provide a form of highlighting. The instructor could use this strategy by changing the color of the handouts and overheads used as the subject changes or as a new concept is discussed. Matching the overhead with the handout allows the student to associate the concept with the color. This association will help the student remember the concepts.

4. Allow the student to tape record lectures.

   Some professors object to their lectures being recorded because they consider such taping an infringement of their academic freedom. However, the student's right to tape record lectures and class discussions must be taken into account if viewed as an appropriate accommodation.

   If you are uneasy about a student recording your class, have the student sign an agreement stating that the tapes will only be used for personal studying. This will deter the student from sharing the recordings with anyone else.

In the packet is an example of a tape recording agreement. You are more than welcome to use this agreement in your class.

Handout #14
Overhead #14
Tape recording agreement

TAPE-RECORDING AGREEMENT

I understand that, as a student enrolled at the institution, who has a disability that affects my ability to take or read notes, I have the right to tape record my class lectures for use in my personal studies *only*. I realize that lectures taped for this reason may not be shared with other people without the written consent of the lecturer. I also understand that tape-recorded lectures may not be used in any way against the faculty member, other lecturer, or students whose classroom comments are taped as part of the class activity.

I am aware that the information contained in the tape recorded lectures is protected under federal copyright laws and may not be published or quoted without the expressed consent of the lecturer and without giving proper identification and credit to the lecturer. I agree to abide by these guidelines with regard to any lectures I tape while enrolled as a student at the institution.

_____ _____

Signature of Student Date

_____ _____

Signature of Lecturer Signature of Witness

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5. Help the student to locate someone in the classroom that would volunteer to take notes for them using carbon paper, NCR paper or photocopying.

   A notetaker may be necessary if students have extreme difficulty taking notes in class due to perceptual, motor, or cognitive impairments.

6. Give students access to lecture notes.

   Some instructors are afraid to give out lecture notes because of the possibility students will not attend class or the notes will be shared with others. I suggest giving the student the lecture notes after the lecture and having the student sign an agreement similar to the one for recording lectures.

7. Provide visual and oral instruction through the use of handouts, overheads, videos, and slides. Whenever possible, provide hands-on activities.

8. Highlight important points in a lecture. Make them a different color if using overheads or printed material, or announce that it is an important point.

Other accommodations you can incorporate into your curriculum include:

1. Allow extra time for class projects and papers.

Overhead #15
Handout #15
Direct accommodations

Some courses will move at such a fast pace that students will not be able to keep up. In these instances, it may be appropriate for instructors to allow students to move at their own pace. Students could be given a grade of Incomplete allowing them time to finish the course after the scheduled class is over. Another way to satisfy the need for extra time would be for the instructors to allow the students to repeat the class without penalty and without being graded the first time through the course.

2. Allow the student to complete alternative assignments.

What are some alternative assignments that could be substituted for current lessons you give in your class?

To Trainer: Allow the participants to brainstorm alternative assignments.

Alternative assignments could still demonstrate knowledge of the subject without taxing the student and increase the student's chance for success. Alternative assignments do not mean less or more in the assignment, just a different type of assignment.

Alternatives you can mention include:

- Instead of writing a term paper, allow the student to do research on the paper and demonstrate what they have learned through the use of charts, graphs, diagrams and other visuals.
- Instead of a term paper, the student might present an oral report.
- Reduce the length of the project.

3. Allow the student to do an extra credit assignment when this option is not available to other students.

4. Allow the student to give oral presentations or tape record assignments rather than complete written assignments.

   Students with significant writing difficulties may need to communicate their knowledge of course material in an oral presentation instead of writing. This accommodation can be carried out in several ways. One way is for the students to meet with their course instructors and orally present the information. A second alternative is for students to put their reports on tape, and the instructor can listen to them as he or she grades the assignments. A third option is for students to record their reports on tape and then have a transcriber put them into written form.

5. Allow the student to rewrite a paper for a higher grade.

   Giving the student a chance to rewrite the assignment for a higher grade takes some of the pressure off and gives the student a chance to work on content with the first draft and perfect technical components with the final draft. Allowing students to rewrite a paper also gives them a second chance in case they misunderstood the assignment the first time. Students will get feedback and direction on how to improve the quality of the paper. By allowing students to verbalize their thoughts and ideas, they are able to organize information prior to writing. This process will reduce or eliminate the need to rewrite work.

6. Students may need assistance from the instructor in order to get their thoughts and knowledge together in the proper fashion.

   The instructor, a peer, or tutor talking through the ideas will help students organize information and provide needed details before writing. This is also an opportunity to get feedback <u>before</u> writing.

7. Allow the student to withdraw from a course after the usual deadline.

There are some courses that do not provide adequate feedback to the student on progress until after the withdrawal cut-off date. An example of this is when the course requirements include only a mid-term and final test. By the time a student has taken the mid-term and received the results of the test, it is too late to withdraw without penalty. By allowing students to withdraw after the cut-off date, their transcript is not affected and this, in turn, will allow the students to continue with their education without penalty. The instructor does not usually have sole authority to grant the student a withdrawal after the deadline. The instructor must be willing to grant the withdrawal in writing. The student must then petition the Registrar or Admissions office of the college. The final decision is left with the institution's administration.

Overhead #16
other accommodations

Other accommodations that do not directly affect the curriculum but could be beneficial for the instructor to be aware of are the following: (Please remember these are only options to consider.)

Taped Textbooks - Many outside organizations including the Recording for the Blind (RFB) Service provide taped textbooks for students with learning disabilities. If RFB does not have the book on tape at the time of the request, all the student has to do is provide copies of the text and they will record the text for the student. Taping texts does take extra time to produce which is a consideration.

Writers - Writers can act as scribes for the student while writing reports, answering test questions, or taking notes.

If participants seem reluctant to use writers, explain that these are only options. Writers do not necessarily have to answer test questions. The Access Office which will be introduced later in this module provides testers for individuals with disabilities and monitors these testers periodically.

Proofreaders - Proofreaders can help students who have a particular difficulty in their written work, such as an inability to locate spelling and punctuation errors. A proofreader can help the student present a more professional paper, explain the types of errors the student makes, and perhaps help them to eradicate future errors.

Content Area Tutors - Many institutions offer tutorial services. These tutors not only have expertise in the content area, but they also have an understanding of students with disabilities and their special needs.

Modification activity

To Trainer: This activity is optional based on how much time you have available and your audience. Please use discretion.

We have covered a variety of accommodations you can incorporate into your curriculum. I would like for you to take a few minutes at this time and identify at least three changes you could make to your course to promote a better understanding of your subject matter and accommodate students with learning disabilities. Keep in mind that using these accommodations will benefit the regular students as well.

Give the participants about five minutes to write down any ideas they may have. Have them discuss their ideas. For curriculum adaptations that are unique to the material covered, you may want to encourage the participants to write these ideas down.

C. Challenges for Students and Faculty

Students - How to be an advocate for oneself

Many students are unaware of the services available. However, it is up to students to keep requesting services from the institution. They may begin by approaching the instructor and asking for the accommodation needed.

Because of the stigma associated with a learning disability, many students elect to keep the disability private. Some students who know they **could** qualify for support choose **not** to identify themselves because of this stigma. This unfortunate response may account for many of the students with learning disabilities who are not successful at the postsecondary level. These students must overcome the fear of being judged in order to receive the extra help to be successful.

How faculty can help

Students with disabilities should not learn of the availability of services and accommodations by accident, or late in their academic careers after receiving grades that may not reflect their effort and mastery of

course material.

As an instructor, it is your responsibility to be ready and willing to assist a student who approaches you concerning accommodations. Some of the alterations and adaptations mentioned previously can be easily established. However, the student may request accommodations for which you are not prepared.

You may need outside help to accommodate the individual with the following needs:

- Texts that need recording;
- Tutoring needs; and,
- The student needs a separate facility from the classroom to take a test.

V. Resources

Having information on hand about facilities available to you and the student will be beneficial when providing accommodation. You can refer students to these facilities to get assistance. These facilities can provide you with information as well.

Handout #16
On campus resources

A. ON CAMPUS

Access Office for Students with Disabilities
A048 Brady Commons
882-4696
This office can provide testing proctors and readers for individuals with disabilities needing assistance. To receive assistance, students must be registered with the Access Office. The Access Office coordinates arrangements for adapted testing, notetaking assistance, lab assistants, and taped textbooks.

Learning Center
231 Arts and Science Building
882-2493
The Learning Center provides free individual or group tutoring in the areas of math, reading/writing, and content area courses to any enrolled undergraduate who is registered with the Access Office. Learning disability assessments can be performed as well.

Ellis Library
882-4701
Ellis Library has private study and testing rooms. The Access Office utilizes these rooms when proctoring tests.

Student Counseling Center
119 Parker Hall
882-6601
Many students, with and without disabilities, go through many changes while attending college. The Student Counseling Center can help the student to adapt to the new environment.

The ADA Project
Lee Henson, ADA Coordinator
Human Resource Services
130 Heinkel Building
University of Missouri-Columbia
Columbia, MO 65211
(314) 882-4382

SLD Assessment and Consultation Clinic
15 Hill Hall
University of Missouri-Columbia
Columbia, MO 65211
(314) 882-5092
Specific Learning Disabilities (SLD) is an extension of the Department of Educational and Counseling Psychology graduate mission in teaching, research and service. The SLD Assessment and Consultation Clinic provides extensive diagnostic and prescriptive services for adolescents and adults with specific learning disabilities.

B. OFF CAMPUS

There are times when your campus resources are not enough. In your handout there is a list of outside resources that you or the student can contact for assistance.

Handout #17
Off campus resources

HEATH
One Dupont Circle, Suite 800
Washington, DC 20036
1-800-544-3284

Recordings for the Blind
20 Roszel Road
Princeton, NJ 08540
800-221-4792

Talking Tapes for the Blind
3015 S. Brentwood Blvd.
St. Louis, MO 63144
314-968-2557

Learning Disabilities Association
5225 Grace Street
Pittsburgh, PA 15236

Vocational Rehabilitation
Rusk Rehabilitation Center
One Hospital Drive
University Hospital & Clinics
Columbia, MO 65212
882-4936

Association on Higher Education and Disabilities (AHEAD)
Programs in Postsecondary Education
P.O. Box 21192
Columbus, OH 43221-0192

Association of Learning Disabled Adults
P.O. Box 9722
Friendship Station
Washington, DC 20016

VI. Discussion/Conclusion

To Trainer: Allow time for participants to look over the outline, respond to the workshop, and ask questions.

Please take a moment to look over the outline again.

Are there any questions or comments about the workshop you would like to address at this time?

Please remember, **"Fair" does not mean that every individual gets the same treatment, but that every person gets what he or she needs. (Lavoie, 1990)**

If you are ever unsure how much accommodation you should provide, contact the ADA Coordinator at your institution for further details.

Thank you for your participation in this seminar.

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OVERHEADS

1. Workshop Title
2. Objectives
3. Agenda
4. Beliefs, impressions, myths
5. Definition of a Learning Disability
6. "How Difficult Can This Be?" - notes
7. "How Difficult Can This Be?" - questions
8. Statistics
9. Needs of the student with a learning disability
10. Learning Styles
11. Specific Learning Styles - definitions
12. Alternative teaching methods
13. Accommodation activity
14. Tape recording agreement
15. Direct accommodations
16. Other accommodations

Overhead #1

How to Provide Accommodation for Students with Learning Disabilities

Overhead #2

OBJECTIVES

1. To provide a definition and characteristics of a learning disability.

2. To provide an understanding of what it means to have a learning disability and dismiss any myths that may be associated with learning disabilities.

3. Introduce legislation affiliated with learning disabilities and what the responsibilities are of the institution, the instructor and the student.

4. Introduce what learning styles are and how instruction and materials can be adapted to accommodate an individual's learning style.

5. To provide a listing of facilities available on and off campus that can be utilized by the instructor or student.

Overhead #3

AGENDA

I. Purpose/Introduction

II. Attitudes/Values

III. Statistics/Legislation

IV. Learning Styles/Modifications/Auxiliary Aids

V. Resources

VI. Discussion/Conclusion

Overhead #4

What are some of the beliefs, impressions, or myths you know of or have heard concerning individuals with learning disabilities?

Overhead #5

"Learning disabilities" is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan (The National Joint Committee on Learning Disabilities).

Overhead #6

1. How do you think the individuals felt who participated in this experiment?

F - Frustration

A - Anxiety

T - Tension

Overhead #7

How did the video portray some of the characteristics of an individual with learning disabilities?

What can instructors do to be more accommodating to the students?

As an educator, how would you be able to alleviate some of the frustration, anxiety and tension individuals with learning disabilities may encounter in your classroom?

Overhead #8

It is estimated that one in ten Americans has a learning disability and many of these individuals are pursuing an education in community colleges and four-year institutions (West, 1993).

The number of individuals with learning disabilities attending college has increased dramatically in recent years. Students with learning disabilities comprise at least 7% of all incoming freshmen (West, 1993).

Overhead #9

There are two ways to serve the needs of the student with a learning disability in a college setting:

1. **The student adapts to existing institutional standards with help from counseling, tutoring and support services; and**

2. **The institution adapts its basic process of teaching and program requirements to the learning styles of the student.**

Overhead #10

A learning style is the way students of every age are affected by their:

a) immediate environment

b) own emotional state

c) sociological needs

d) physical characteristics and

e) psychological inclinations when concentrating and trying to master and remember new or difficult information and skills. (Dunn & Dunn, 1978).

Overhead #11

Three Learning Styles

Visual learners - Learn from looking. Films, handouts, books, a chalkboard, graphs, models, and pictures.

Auditory learners - Learn by listening. Tape recordings, lectures, verbal explanations of written material, and oral exams.

Tactile and Kinesthetic learners - Learn through hands-on, real-life experience. Touching and manipulating concrete materials help the person learn and retain information. To recognize words and meanings, activities which provide involvement of the whole body should be arranged (Dunn & Dunn, 1978).

Overhead #12

Alternative Testing Methods

1. Let students know what kind of test to expect.
2. Allow the student to take an alternative form of the exam.
3. Allow the student extra time on the test.
4. Allow the student to take the exam in a separate, quiet room.
5. Allow a proctor to read the exam questions to the student.
6. Allow the student to dictate test answers to a proctor or tape record answers.
7. Allow the student to use electronic equipment during a test such as a word processor, calculator, tape recorder, etc.
8. Provide study guides.
9. Have the student develop a product or package to demonstrate knowledge of a unit as an alternative to testing.

Overhead #13

Activity: Write down some other types of adaptations, accommodations, or teaching styles you have observed being used in this workshop.

Overhead #14

TAPE-RECORDING AGREEMENT

I understand that, as a student enrolled at the institution, who has a disability that affects my ability to take or read notes, I have the right to tape record my class lectures for use in my personal studies *only*. I realize that lectures taped for this reason may not be shared with other people without the written consent of the lecturer. I also understand that tape-recorded lectures may not be used in any way against the faculty member, other lecturer, or students whose classroom comments are taped as part of the class activity.

I am aware that the information contained in the tape recorded lectures is protected under federal copyright laws and may not be published or quoted without the expressed consent of the lecturer and without giving proper identification and credit to the lecturer. I agree to abide by these guidelines with regard to any lectures I tape while enrolled as a student at the institution.

_____ _____

Signature of Student **Date**

_____ _____

Signature of Lecturer **Signature of Witness**

Overhead #15

Direct Accommodations

1. Allow extra time for class projects and papers.

2. Allow the student to complete alternative assignments.

3. Allow the student to do an extra credit assignment.

4. Allow the student to give oral presentations or tape record assignments rather than complete written assignments.

5. Allow the student to rewrite a paper for a higher grade.

6. Allow the student to withdraw from a course after the usual cut-off date.

7. Allow the student to work with a peer, tutor, or instructor to pre-write before the writing assignment is due.

Overhead #16

Other Accommodations

Taped Textbooks - Many outside organizations including the Recording for the Blind (RFB) Service provide taped textbooks for students with learning disabilities.

Writers - Writers can act as scribes for the student as they write reports, answer test questions, or take notes.

Proofreaders - Proofreaders can help students who have a particular difficulty in their written work, such as an inability to locate spelling and punctuation errors.

Content Area Tutors - Many institutions offer tutorial services.

HANDOUTS

1. Objectives
2. Agenda
3. Beliefs, impressions, myths
4. Definition of a Learning Disability
5. "How Difficult Can This Be?" - notes
6. "How Difficult Can This Be?" - notes continued
7. Section 504 and ADA
8. Characteristics of the Brain's Hemispheres
9. Analytic/Global Students' Learning Styles
10. Matching Teaching Styles with Students' Learning Styles
11. Specific Learning Styles - definitions
12. Alternative teaching methods
13. Accommodation activity
14. Tape recording agreement
15. Accommodations
16. On Campus resources
17. Off campus resources

Handout #1

OBJECTIVES

1. To provide a definition and characteristics of a learning disability.

2. To provide an understanding of what it means to have a learning disability and alleviate any myths that may be associated with disabilities.

3. To introduce legislation affiliated with learning disabilities and what the responsibilities are of the institution, the instructor and the student.

4. To introduce what learning styles are and how instruction and materials can be adapted to accommodate an individual's learning style.

5. To provide a listing of facilities available on and off campus that can be utilized by the instructor or student.

Handout #3

What are some of the beliefs, impressions, or myths you know of or have heard concerning individuals with learning disabilities?

Handout #4

"Learning disabilities" is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan (The National Joint Committee on Learning Disabilities).

Handout #5

How Difficult Can This Be?
Notes on Video

1. **How do you think the individuals felt who participated in this experiment?**

   F -

   A -

   T -

Handout #6

1. **How did the video portray some of the characteristics of an individual with learning disabilities?**

   a. **What example demonstrated the "inability to process language"?**

   b. **What was an example of "visual perception" problems?**

   c. **"Reading comprehension"?**

   d. **"Visual-motor coordination"?**

   e. **"Oral expression"?**

   f. **"Reading and decoding"?**

   g. **"Auditory and visual capabilities"?**

2. **What can instructors do to be more accommodating to the students?**

3. **As an educator, how would you be able to alleviate some of the frustration, anxiety and tension individuals with learning disabilities may encounter in your classroom?**

Handout #7

Section 504

Section 504 of the Federal Rehabilitation Act of 1973 (which was signed into law on April 28, 1978) was the first federal civil rights legislation designed to protect the rights of individuals with disabilities. Section 504 stipulates that "no qualified handicapped person shall, on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity which receives or benefits from federal assistance." (Shaw, 1986)

This mandate applies to persons with disabilities who are otherwise qualified to participate in and benefit from any program that is receiving federal assistance which include colleges and universities. Section 504 prohibits discrimination on the basis of disabling conditions by programs and activities receiving or benefiting from federal financial assistance. In other words, students with learning disabilities cannot be discriminated against based on their learning disability alone.

The protection through Section 504 was expanded to include all citizens with disabilities through the Americans with Disabilities Act of 1990 (Public Law 100-336). (West, 1993)

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) has been called the most sweeping civil rights act passed in the last 25 years. The law prohibits discrimination against individuals with disabilities in many different settings, including colleges and universities, regardless of whether the educational institution receives federal financial assistance (Jarrow, 1991).

Handout #8

Characteristics of the Brain's Hemispheres

the left brain (analytic/sequential)	the right brain (global/simultaneous)
• is "verbal." It takes in and processes messages coded in language. It thinks by talking to itself as it manipulates words and numbers.	• is "nonverbal". It deals directly with reality. Its thinking is done without the use of words or numbers.
• has a keen and constant awareness of time. Much of its evaluating and organizing is done in reference to an inner clock.	• has no consciousness of time.
• has no sense of space.	• has a highly developed awareness of space. A great portion of its thinking is done in terms of manipulating concrete or imaginary objects in space.
• breaks information into small, manageable pieces.	• takes in data as whole units.
• organizes material by putting its component parts into a specific order. Sequence is a vitally important element in most of its processing. It works with step-by-step logic.	• organizes information by seeking relationships and recognizing similarities between wholes.
• focuses attention very narrowly on small pieces and component parts.	• expands the focus of attention to detail with large whole units.
• specializes in analyzing. It notes differences between parts so they can be evaluated or categorized.	• specializes in synthesizing. By making analogies, it seeks to build, alter, create.
• prepares factual information for storage in memory.	• produces sudden insights which are stepping stones to still bigger revelations.
• reasons its way to a conclusion without feelings or emotions. It figures things out by being factual and systematic.	• feels its way to conclusions by hunches or trial and error. It knows intuitively by being sensitive, imaginative, and whimsical.

Stevens, S.H. (1988). Classroom success for the learning disabled. Winston-Salem, NC: John F. Blair.

Handout #9

Analytic Students Often:

1. Process information sequentially and logically.

2. Solve problems systematically.

3. Concentrate and learn when information is presented in small, logical steps.

4. Like to follow step-by-step directions.

5. Can understand a rule without examples.

6. Enjoy learning facts such as dates and names.

7. Enjoy learning rules and using them.

8. Are critical and analytic when reading.

9. Recall many facts and details after listening to and/or reading.

Carbo, M., & Hodges, H. (1988). How learning styles and strategies can help students at risk. Teaching Exceptional Children, 20, (4), 55-58.

Global Students Often:

1. Concentrate and learn when information is presented as a gestalt or whole.
2. Respond to emotional appeals.
3. Tend to like fantasy and humor.
4. Get "wrapped up" in a story and do not concentrate on the facts.
5. Process information subjectively and in patterns.
6. Need to know the essence of a story before reading/hearing it.
7. Need examples of a rule to understand the rule itself.
8. Understand "concrete" examples better than those that are "abstract".
9. Easily can identify the main ideas in a story.
10. Are unconcerned about dates, names, or specifics.
11. Recall information easily when it is presented in the form of an anecdote.
12. Will concentrate and pay attention better if the goal of the lesson is clearly state at the beginning.
13. Need to learn with high-interest, meaningful materials.
14. Understand text better if it is enhanced by visuals (drawings, cartoons, photographs).

Carbo, M., & Hodges, H. (1988). How learning styles and strategies can help students at risk. Teaching Exceptional Children, 20 (4), 55-58.

Handout #10

Matching Teaching Styles with Students' Learning Styles

Styles	CONCRETE SEQUENTIAL	ABSTRACT SEQUENTIAL	ABSTRACT RANDOM	CONCRETE RANDOM
Characteristics	organized task-oriented factual detailed efficient	critical intellectual analytical theoretical	imaginative holistic emotional interpretive flexible	risk-taking divergent inventive experiential independent
Instructional Focus Supporting	Hands-on learning structure & pattern directions, details practical problems realistic situations	reason & logic ideas & information theory & concepts analysis & evaluation independent study	interpretation peer-teaching explanation communication illustration	open-ended activity options exploration investigation experimentation
Strategies	hands-on approaches computers how-to projects workbooks data-gathering	lecture, text content mastery extensive reading reporting conceptual	group work webbing, mapping media, music role-playing	brainstorming simulations, games problem-solving experiments finding alternatives
Matching Styles	sort, label, list collect, make, construct classify, measure prepare, build	outline, report devise, speculate critique, infer hypothesize summarize, verify	associate, connect share, relate, express, present interpret, perform imagine, counsel	explore, consider reorganize forecast, process predict, create recommend
Types of Products	time-line graph diorama model exhibit	debate lecture document theory research	arts, music writing interview helping projects journal	invention editorial solutions games experiments

(Adapted from Butler, K.A. (1988). Learning styles. Learning88, 17 (4), 30-35.)

Handout #11

Three Learning Styles

Visual learners - Need to "see it to know it." Instructional strategies to facilitate learning may be films, diagrams, and graphs.

Auditory learners - Learn by listening. Instructional strategies to facilitate learning may be; tape recording lectures, group discussion and oral exams.

Tactile learners - Learn through the sense of touch. Instructional strategies to facilitate learning may be manipulation of concrete items.

Kinesthetic learners - Learn by doing. Instructional strategies may be role-playing or dramatization.

Handout #12

Alternative Testing Methods

1. Let your students know what kind of test to expect.

2. Allow the student to take an alternative form of the exam.

3. Allow the student extra time to complete a test.

4. Allow the student to take the exam in a separate, quiet room to reduce distractions.

5. Allow a proctor to read the exam questions to the student.

6. Allow the student to dictate test answers to a proctor or tape record answers.

7. Allow the student to use electronic equipment during a test such as a word processor, calculator, tape recorder, etc.

8. Provide study guides.

9. Have the student develop a product or package to demonstrate knowledge of a unit as an alternative to testing.

Activity: Write down some other types of adaptations, accommodations, or teaching styles you have observed being used in this workshop.

Handout #14

TAPE-RECORDING AGREEMENT

I understand that, as a student enrolled at the institution, who has a disability that affects my ability to take or read notes, I have the right to tape record my class lectures for use in my personal studies *only*. I realize that lectures taped for this reason may not be shared with other people without the written consent of the lecturer. I also understand that tape-recorded lectures may not be used in any way against the faculty member, other lecturer, or students whose classroom comments are taped as part of the class activity.

I am aware that the information contained in the tape recorded lectures is protected under federal copyright laws and may not be published or quoted without the expressed consent of the lecturer and without giving proper identification and credit to the lecturer. I agree to abide by these guidelines with regard to any lectures I tape while enrolled as a student at the institution.

_____ _____

Signature of Student **Date**

_____ _____

Signature of Lecturer **Signature of Witness**

Direct Accommodations

1. Allow extra time for class projects and papers.

2. Allow the student to complete alternative assignments.

3. Allow the student to do an extra credit assignment when this option is not available to other students.

4. Allow the student to give oral presentations or tape record assignments rather than complete written assignments.

5. Allow the student to rewrite a paper for a higher grade.

6. Allow the student to withdraw from a course after the usual deadline.

Other Accommodations

Other accommodations that do not directly affect the curriculum but would be beneficial for the instructor to be aware of are:

Taped Textbooks - Many outside organizations including the Recording for the Blind (RFB) Service provide taped textbooks for students with learning disabilities.

Writers - Writers can act as scribes for the student as they write reports, answer test questions, or take notes.

Proofreaders - Proofreaders can help students who have a particular difficulty in their written work, such as an inability to locate spelling and punctuation errors.

Content Area Tutors - Many institutions offer tutorial services.

Handout #16

Campus Resources
University of Missouri-Columbia

1. **Access Office for Students with Disabilities**
   A048 Brady Commons
   882-4696
   This office can provide testing proctors and readers for individuals with disabilities needing assistance. To receive assistance, students must be registered with the Access Office. The Access Office coordinates arrangements for adapted testing, notetaking assistance, lab assistants, and taped textbooks.

2. **Learning Center**
   231 Arts and Science Building
   882-2493
   It provides free individual or group tutoring in the areas of math, reading/writing, and content area courses to any enrolled undergraduate who is registered with the Access Office. Learning disability assessments can be performed as well.

3. **Ellis Library**
   882-4701
   It has private study and testing rooms. The Access Office utilizes these rooms when proctoring tests.

4. **Student Counseling Center**
   119 Parker Hall
   882-6601
   Many students, with and without disabilities, go through many changes while attending college. The Student Counseling Center staff can help the student to adapt to the new environment.

5. **The ADA Project**
   Lee Henson, ADA Coordinator
   Human Resource Services
   130 Heinkel Building
   University of Missouri-Columbia
   Columbia, MO 65211
   (314) 882-4382

6. **SLD Assessment and Consultation Clinic**
   15 Hill Hall
   University of Missouri-Columbia
   Columbia, MO 65211
   (314) 882-5092
   Specific Learning Disabilities (SLD) is an extension of the Department of Educational and Counseling Psychology graduate mission in teaching, research and service. The SLD Assessment and Consultation Clinic provides extensive diagnostic and prescriptive services for adolescents and adults with specific learning disabilities.

Handout #17

Off Campus Resources

1. **Recordings for the Blind**
   20 Roszel Road
   Princeton, NJ 08540
   800-221-4792

2. **Talking Tapes for the Blind**
   3015 S. Brentwood Blvd.
   St. Louis, MO 63144
   314-968-2557

3. **Vocational Rehabilitation**
   Rusk Rehabilitation Center
   One Hospital Drive
   University Hospital & Clinics
   Columbia, MO 65212
   882-4936

4. **Learning Disability Association (LDA)**
   5225 Grace Street
   Pittsburgh, PA 15236

5. **Association on Higher Education and Disabilities (AHEAD)**
   Programs in Postsecondary Education
   P.O. Box 21192
   Columbus, OH 43221-0192

6. **Association of Learning Disabled Adults**
   P.O. Box 9722
   Friendship Station
   Washington, DC 20016

7. **HEATH**
   One Dupont Circle, Suite 800
   Washington, DC 20036
   1-800-544-3284